

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P837244

Luminaire Tested: HCSQ407D010-HM40525835-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837244
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525835-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

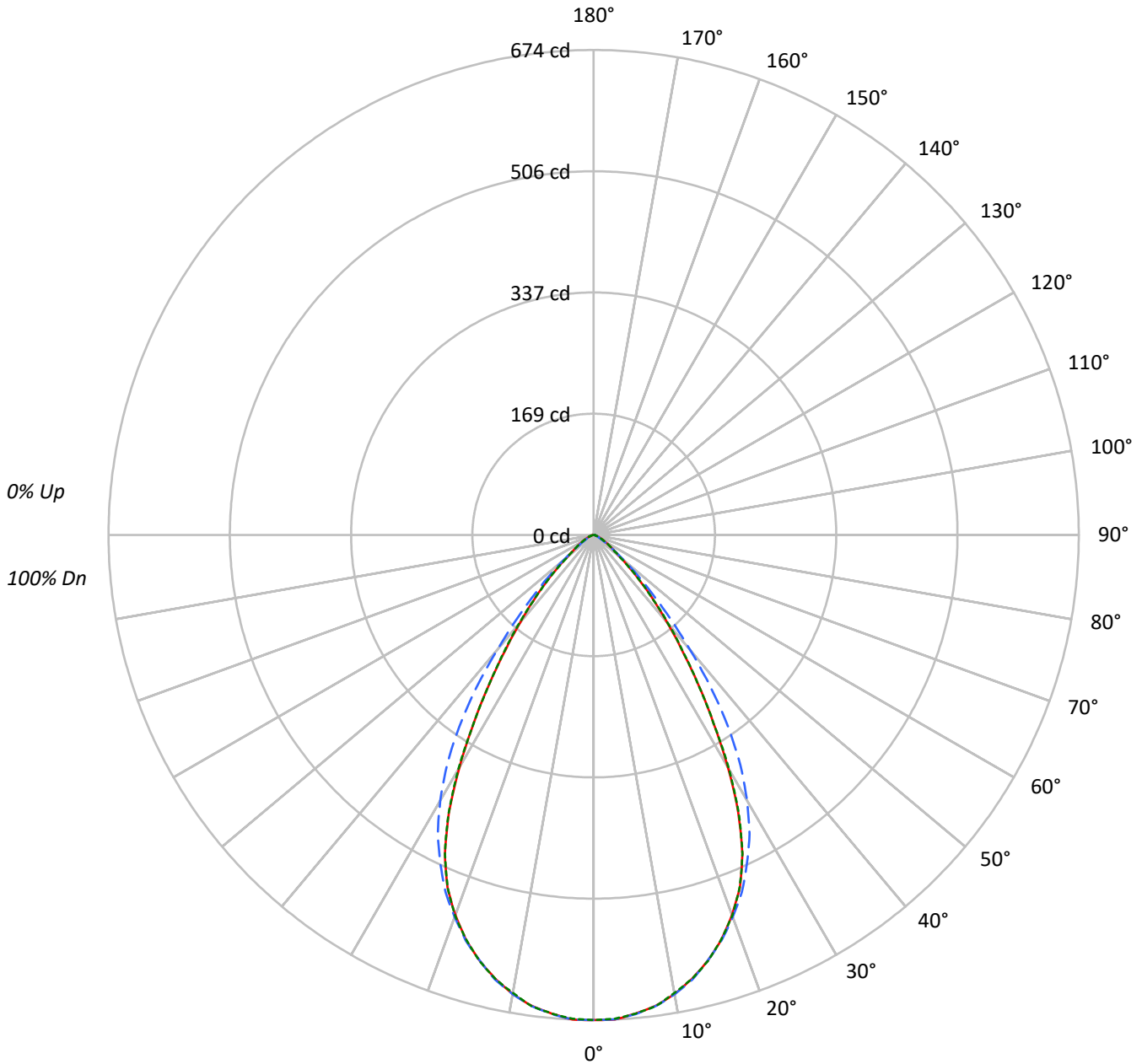
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 758.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100																
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92			92																
2	107	101	97	93	104	100	95	92	96	93	90	93	90	88	90	88	86	85			85																
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77			77																
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71			71																
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65			65																
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60			60																
7	80	70	63	59	78	69	63	58	68	62	58	66	61	58	65	61	57	56			56																
8	75	65	59	54	74	65	58	54	63	58	54	62	57	54	61	57	53	52			52																
9	72	61	55	50	70	61	54	50	60	54	50	59	54	50	58	53	50	48			48																
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45			45																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	65323	65323	65323
5°	64931	65009	64931
10°	63714	63754	63586
15°	61449	61409	61490
20°	57928	58227	58051
25°	52269	53873	52269
30°	41747	47664	42071
35°	29802	38566	29850
40°	20120	26228	20436
45°	12782	15522	12837
50°	7279	8289	7023
55°	4780	4003	4712
60°	3313	2344	3236
65°	2292	1719	2292
70°	1643	1303	1643
75°	1085	1085	1085
80°	669	948	948
85°	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15522 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	8.3
10°-20°	171.8	22.7
20°-30°	224.9	29.7
30°-40°	176.8	23.3
40°-50°	82.6	10.9
50°-60°	25.6	3.4
60°-70°	9.1	1.2
70°-80°	3.2	0.4
80°-90°	0.9	0.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	459.9	60.7
0°-40°	636.6	84.0
0°-60°	744.8	98.3
0°-90°	758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	668	668	668	669	668	63
15°	613	613	612	613	613	172
25°	489	496	504	496	489	220
35°	252	275	326	278	252	159
45°	93	104	113	102	94	74
55°	28	27	24	26	28	26
65°	10	9	8	9	10	10
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	674.3	674.3	674.3	674.3	674.3
2.5°	674.3	673.5	673.9	673.1	673.1
5°	667.7	668.1	668.5	669.3	667.7
7.5°	660.2	661.0	660.6	660.6	660.6
10°	647.7	648.1	648.1	648.1	646.4
12.5°	631.8	632.7	633.1	631.8	631.8
15°	612.7	612.7	612.3	612.7	613.1
17.5°	589.8	591.0	591.0	589.8	589.4
20°	561.9	564.0	564.8	563.1	563.1
22.5°	530.6	532.7	537.7	533.6	530.2
25°	489.0	495.6	504.0	496.1	489.0
27.5°	435.3	449.8	469.0	452.3	436.5
30°	373.2	396.9	426.1	398.2	376.1
32.5°	309.9	336.5	379.4	338.6	309.9
35°	252.0	274.9	326.1	278.2	252.4
37.5°	200.3	222.4	267.4	224.9	203.3
40°	159.1	177.0	207.4	176.6	161.6
42.5°	124.1	137.0	157.0	136.6	123.7
45°	93.3	104.5	113.3	102.5	93.7
47.5°	68.7	76.2	81.2	75.0	67.1
50°	48.3	53.7	55.0	52.5	46.6
52.5°	36.2	36.2	36.7	35.8	35.4
55°	28.3	26.7	23.7	26.2	27.9
57.5°	22.1	20.4	16.7	19.6	21.7
60°	17.1	15.4	12.1	15.0	16.7
62.5°	13.3	11.7	9.6	11.7	12.9
65°	10.0	9.2	7.5	8.7	10.0
67.5°	7.5	6.7	5.8	6.7	7.5
70°	5.8	5.4	4.6	5.0	5.8
72.5°	4.2	3.7	3.7	3.7	4.2
75°	2.9	2.9	2.9	2.9	2.9
77.5°	2.1	2.1	2.1	2.1	2.1
80°	1.2	1.2	1.7	1.7	1.7
82.5°	0.8	0.8	1.2	1.2	1.2
85°	0.8	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.4	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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